

Safety Evaluation Number¹: SE-W375-00-00017Revision No: 0ABCN Number: ABCN-W375-00-00025Safety Evaluation Subject: Changes to the PSM Program**PART I: DESCRIPTION OF THE PROPOSED REVISION, BACKGROUND, AND SCHEDULE**

1. Describe the proposed revision (including credible failure modes, if applicable).

Revise the definition of Safety Design Class in SRD SC 1.0-8 and 2.0-2, QAPIP Section 1.2.1, and ISMP Section 12 from ERPG-2 to workers or the public to ERPG-2 to the public, ERPG-3 to the co-located worker, or a single worker fatality or hospitalization of 3 or more workers. Provide for use of TEEL values as substitute criteria in cases where no ERPG value has been published.

Replace ISMP with SRD Appendix A as an implementing standard for SRD SC 1.0-1, 3.1-1, -2, -3, -4, -5, -8.

Remove references to 29 CFR 1910.119 and/or 40 CFR 68 as regulatory bases in SRD SC 1.0-1, 3.1-1, -2, -3, -5, -6, -7, -8, 4.0-2, 4.5-23, 6.0-1, -5, 7.1-1, -2, 7.2-3, -3, -5, -6, -7, -8, 7.3-7, -10, -11, 7.6-2, -4, 7.7-1, -2, -3, 7.8-1, -2, -5, 9.1-7, and ISMP Sections 1.3.16, 1.3.17, 3.10, 5.0, 5.6.8, 7.2, and 9.2.

Delete SRD Section 9.3

Revise SRD SC 3.1-1 to specify that chemical hazards must be included in the PHA.

Revise SRD SC 3.1-2 to allow compilation of process safety information appropriate to the level of design, to support the PHA.

Revise the update frequency for PHA specified in SRD SC 3.1-7, and ISMP Sections 5.6.2 and 9.2 from once every 5 years to annual.

Revise the seismic design criteria in SRD SC 4.1-3 and 4.1-4, and ISMP Section 1.3.10 for SSC's designated SDC on the basis of chemical consequences from SC-I/II to SC-III.

Revise the chemical concentration limits specified in SRD SC 4.3-7 for control room habitability from ERPG-2 to the values specified in 29 CFR 1910.120, and add 29 CFR 1910.120 to the list of regulatory bases.

Include chemical hazards in the definition of USQ specified in SRD SC 7.4-1, and ISMP Section 3.16.4.

Revise the scope of the Hazards Identification specified in SRD Appendix A, Section 4.3.1 to include chemical hazards.

Revise the discussion of control room habitability in SRD Appendix A, Section 5, and ISMP Section 1.3.7 and 8 to be consistent with changes made to SRD SC 4.3-7.

2. Identify the affected Authorization Basis (AB) documents and perform a comparison and assessment of the revision against the AB.

BNFL-5193-SRD-01, Revision 2e, *TWRS-P Safety Requirements Document*, safety criteria 1.0-1 and -8, 2.0-2, 3.1-1, -2, -3, -4, -5, -6, -7, and -8, 4.0-2, 4.1-3, 4.1-4, 4.3-7, 4.5-23, 6.0-1, and -5, 7.1-1, and -2, 7.2-3, -4, -5, -6, -7, and -8, 7.3-7, -10, and -11, 7.4-1, 7.6-2, and -4, 7.7-1, -2, and -3, 7.8-1, -2, and -5, 9.1-7, Section 9.3 in its entirety, and Appendix A Sections 4.3.1, and 5.0.

BNFL-5193-QAP-01, Rev 4, *TWRS-P Project Quality Assurance Program and Implementation Plan*,

¹ The Safety Evaluation Number shall be obtained from Project Document Control.

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Section 1.2.1.

BNFL-5193-ISP-01, Rev 4, *TWRS-P Project Integrated Safety Management Plan*, Sections 1.3.7, 1.3.8, 1.3.10, 1.3.16, 1.3.17, 3.10, 3.16.4, 5.0, 5.6.2, 5.6.8, 7.2, 9.2, and 12.0.

The assesment of the change against the AB is contained in Section II below.

3. List the references used for the safety evaluation.

BNFL-5193-SRD-01, Revision 2e, *TWRS-P Safety Requirements Document*.

DOE/RL-96-0006, Revision 1, *Top Level Radiological, Nuclear and Process Safety Standards and Principals for TWRS Privatization Contractors*.

Emergency Response Planning Guidelines and Workplace Environmental Exposure Level Guides Handbook, American Industrial Hygiene Association, 1999 and 2000 editions.

29 CFR 1904.8 Reporting of fatality or multiple hospitalization incidents.

BNFL-5193-QAP-01, Rev 5, *TWRS-P Project Quality Assurance Program and Implementation Plan*

BNFL-5193-ISP-01, Rev 4, *TWRS-P Project Integrated Safety Management Plan*

29 CFR 1910.120 Hazardous Waste Operations and Emergency Response

4. Describe the planned revision implementation schedule.

The revisions will be incorporated into the SRD within 30 days of receipt of RU approval.

PART II: REGULATORY IMPACT OF PROPOSED AB REVISION

The following questions are to be answered as part of the safety evaluation, to determine if the proposed AB revision (and the proposed initiating change if applicable) requires prior RU approval.

- | | <u>YES</u> | <u>NO</u> |
|---|-------------------------------------|-------------------------------------|
| 1. Does the revision involve the deletion or modification of a standard previously identified or established in the approved SRD? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| JUSTIFICATION: | | |
| The change alters requirements and standards in the SRD as described above. | | |
| 2. Does the revision result in a reduction in commitment currently described in the AB? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| JUSTIFICATION: | | |
| The changes proposed do not lessen BNFL's commitment to provide facility or co-located workers, or members of the public a level of protection against chemical hazards that is equal to or better than that provided by best industry practice. | | |

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- | | <u>YES</u> | <u>NO</u> |
|---|--------------------------|-------------------------------------|
| 3. Does the revision result in a reduction in the effectiveness of any program, procedure, or plan described in the AB. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

JUSTIFICATION:

The effectiveness of the PSM program remains unchanged.

Note: Guidance on defining the terms and responding to the above questions is provided in K70C528, Code of Practice for Managing Changes to the Authorization Basis, Appendix 6.

If all the answers to the above questions are no, then the change can be made without prior RU approval.

If any of the above answers is yes, then RU approval is required prior to implementation of the AB revision (and the initiating change if applicable). An ABAR shall be prepared to obtain RU approval (see K70C528, Appendix 7.)

PART III: SAFETY EVALUATION CONCLUSION

- ☐ All PART II questions are answered No. Therefore, RU approval is NOT required prior to implementing the proposed AB revision (and initiating change where applicable).
- ☒ At least one PART II question is answered Yes. Therefore, RU approval IS required prior to implementing the proposed AB revision (and initiating change where applicable). Issuance of an ABAR is required to obtain RU approval.

Evaluator/Originator

Date

Reviewer²

Date

Radiation Safety and Regulatory Manager

Date

Chair, Project Safety Committee³

Date

² The reviewer should be a person from the same department as the Evaluator/Originator and at least as qualified as the Evaluator/Originator to conduct safety evaluations.

³ This signature required if Safety Evaluation concludes AB change can be made without RU prior approval. If RU approval (ABAR) is required, PSC and GM signatures occur on the ABAR.

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RPP-WTP General Manager³

Date